*Further Observations on the Effects which take place from the Destruction of the Membrana Tympani of the Ear; with an Account of an Operation for the Removal of a particular Species of Deafness. By Mr.* Astley Cooper. *Communicated by* Everard Home, *Esq. F.R.S.* Read June 25, 1801. [*Phil. Trans.* 1801, *p.* 435.]

The former part of this paper may be considered as a continuation of a preceding one by the same author, printed in the last volume of the Philosophical Transactions, and contains an enumeration of many more facts and circumstances, from which we gather that an aperture in the Membrana Tympani does not essentially diminish the power of the ear, and that even a complete destruction of that membrane is not followed by total deafness.

The causes by which it may be injured are here further inquired into, and are found chiefly to be a suppuration in the Meatus Auditorius, and any kind of external violence; such as blows on the side of the head, the forcible introduction of extraneous substances into the ear, &c.

Mr. Cooper proceeds next to describe the remedy he has, in consequence of his repeated observations that an aperture in the Membrana Tympani does not injure the ear, thought fit to apply to one particular species of deafness; namely, that which arises from an obstruction in the Eustachian tube. After enumerating the causes which most frequently produce these obstructions, such as colds, which often affect the parts contiguous to the orifice of this tube, ulcers in the throat, extravasation of blood, and uncommon strictures in the tube, the author proceeds to describe his operation, which consists simply in puncturing the membrane, with very little pain to the patient, and with instant relief to the disorder.

Several cases are described in which the operation has proved successful.

The criteria are next mentioned by which it may be known whether this tube be closed or open: and lastly, those kinds of deafness are enumerated in which the operation is not likely to produce any salutary effect. These are, when the auditory nerve is affected; when there is any alteration in the contents of the labyrinth; and when in general any derangement takes place which does not immediately affect the Eustachian tube.

*The Croonian Lecture. On the Power of the Eye to adjust itself to different Distances, when deprived of the Crystalline Lens. By* Everard Home, *Esq. F.R.S.* Read November 5, 1801. [*Phil. Trans.* 1802, *p.* 1.]

Its object is to state some facts and observations in support of an opinion advanced by the author in a former Lecture, that the adjustment of the eye to see objects at different distances does not depend upon any internal changes in the crystalline lens.

Before he proceeds, Mr. Home pays a due tribute of praise and